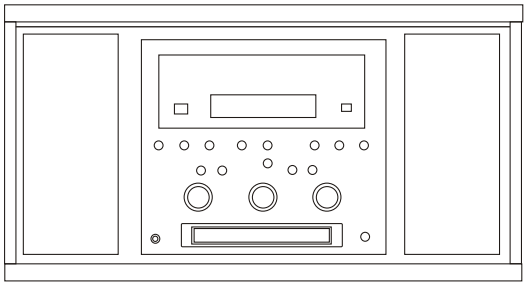

TEAC

SERVICE MANUAL

GF-350

Compact Hi-Fi Stereo System

COMPACT disc DIGITAL AUDIO

NOTES

- PC board shown are viewed from parts side.
- The parts with no reference number or no parts number in the exploded views are not supplied.
- As regards the resistors and capacitors, refer to the circuit diagrams contained in this manual.
- ⚠ Parts marked with this sign are safety critical components. they must be replaced with identical components - refer to the appropriate parts list and ensure exact replacement.

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1 SAFETY INFORMATION 2
2 SPECIFICATIONS 3
3 ADJUSTMENT AND CHECKS 4
4 EXPLODED VIEW AND PARTS LIST 6
5 PC BOARDS AND PARTS LISTS 9
6 WIRING DIAGRAM 15
7 INCLUDED ACCESSORIES 17

1 SAFETY INFORMATION

SAFETY INFORMATION

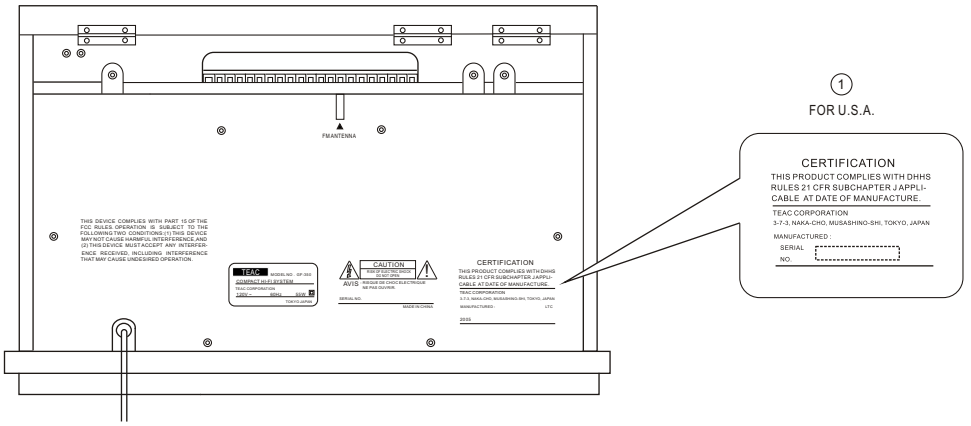
This product has been designed and manufactured according to FDA regulations " title 21, CFR, chapter 1,subchapter J,based on The Radiation Control for Health and Safety Act of 1968" and is classified as class 1 laser product. There is not hazardous invisible laser radiation during operation because invisible laser radiation emitted inside of this product is completely confined in the protective housings. The label required in this regulation is shown ①.

• CAUTION

USE OF CONTROLS OR ADJUSTMENT OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

DO NOT REMOVE THE PROTECTIVE HOUSING USING SCREWDRIVER.

IF THIS PRODUCT DEVELOPS TROUBLE, MAKE A CONTACT WITH OUR SERICEMAN, AND DO NOT USE THE PRODUCT A TROUBLED STATE.


FM ANTENNA
THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS:(1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE,AND (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRED OPERATION.
TEAC
CAUTION
CERTIFICATION
THIS PRODUCT COMPLIES WITH DHHS RULES 21 CFR SUBCHAPTER J APPLICABLE AT DATE OF MANUFACTURE.
TEAC CORPORATION
MANUFACTURED :
SERIAL NO.
① FOR U.S.A.
CERTIFICATION
THIS PRODUCT COMPLIES WITH DHHS RULES 21 CFR SUBCHAPTER J APPLICABLE AT DATE OF MANUFACTURE.
TEAC CORPORATION
3-7-3, NAKA-CHO, MUSASHINO-SHI, TOKYO, JAPAN
MANUFACTURED :
SERIAL NO.

Optical pickup:	Type :	SF-W36FR
	Manufacturer	: SANYO Electric Co.,Ltd.
	Laser output	: Less than 1 mW (Play) on the objective lens
		: Less than 5 mW (Record) on the objective lens
		: Less than 10 mW (Erase) on the objective lens
	Wavelength	: 783 nm

2 SPECIFICATIONS

AMPLIFIER Section

Out Power:	3.5W + 3.5W
Frequency Response	60 Hz to 20 kHz

CD PLAYER Section

Frequency Response:	50 Hz to 20 kHz (+/- 1dB)
Wow and Flutter:	Unmeasurable

TUNER Section

Frequency Range (FM):	87.5MHz to 108.00 MHz
Frequency Range (AM):	530kHz to 1710 kHz

Record Player Section

Motor:	DC servo motor
Driver System:	Belt Drive
Speed:	33-1/3 rpm, 45 rpm, 78 rpm
Wow and flutter:	Less than 0.15% (WDT)
Cartridge type:	Ceramic Stereo Cartridge
Stylus:	STL-153

SPEAKER SYSTEM Section

Type:	1-way
Impedance:	4 ohms

GENERAL

Power Requirements:	120V AC,60Hz
Power Consumption:	55 W
Dimension (W x H x D):	480 x 230 x 380 mm
Weight:	10.5 kg

Standard Accessories:

Owner's Manual x 1
Warranty Card x 1
Remote Control x 1
Battery 1.5V SS/UM-3

- Design and specifications are subject to change without notice.
- Weight and dimensions are approximate.
- Illustrations may differ slightly from production models.

3 ADJUSTMENTS AND CHECKS

3-1 TUNER SECTION

- Use a screwdriver with a plastic or ceramic grip for all adjustment.

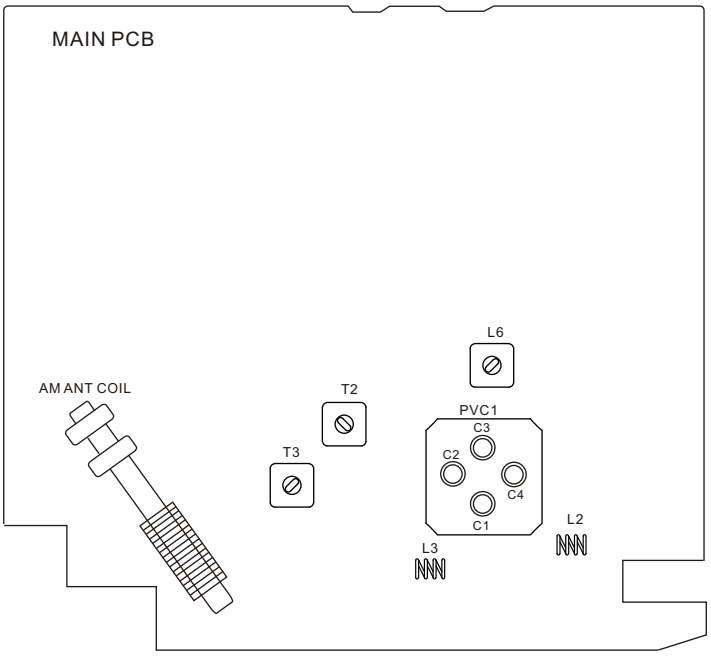
3-1-1 FM adjustment

1. To turn on the power.
2. Set the FUNCTION SELECTOR to RADIO & FM BAND.
3. Connect a SWEEP SCOPE OUTPUT to pin21 of IC1 through a 20pF capacitor and ground.
4. Connect a SWEEP SCOPE INPUT to pin13 or 14 of IC1through a 1uF capacitor and ground.
5. Connect an RF generator to the FM antenna terminal and ground.
6. Connect a SCOPE & VTVM across the speaker output.

3-1-2 AM adjustment

1. To turn on the power.
2. Set the FUNCTION SELECTOR SWITCH to RADIO & AM BAND.
3. Connect a SWEEP SCOPE OUTPUT to AM antenna terminal.
4. Connect a SWEEP SCOPE INPUT to pin13 or 14 of IC1through a 1uF capacitor and ground.
5. Connect an RF generator to a standard radiating loop.
6. Connect a SCOPE & VTVM across the speaker output.

3-2 Adjustment and Test Points



3-2-1 FM/AM alignment chart

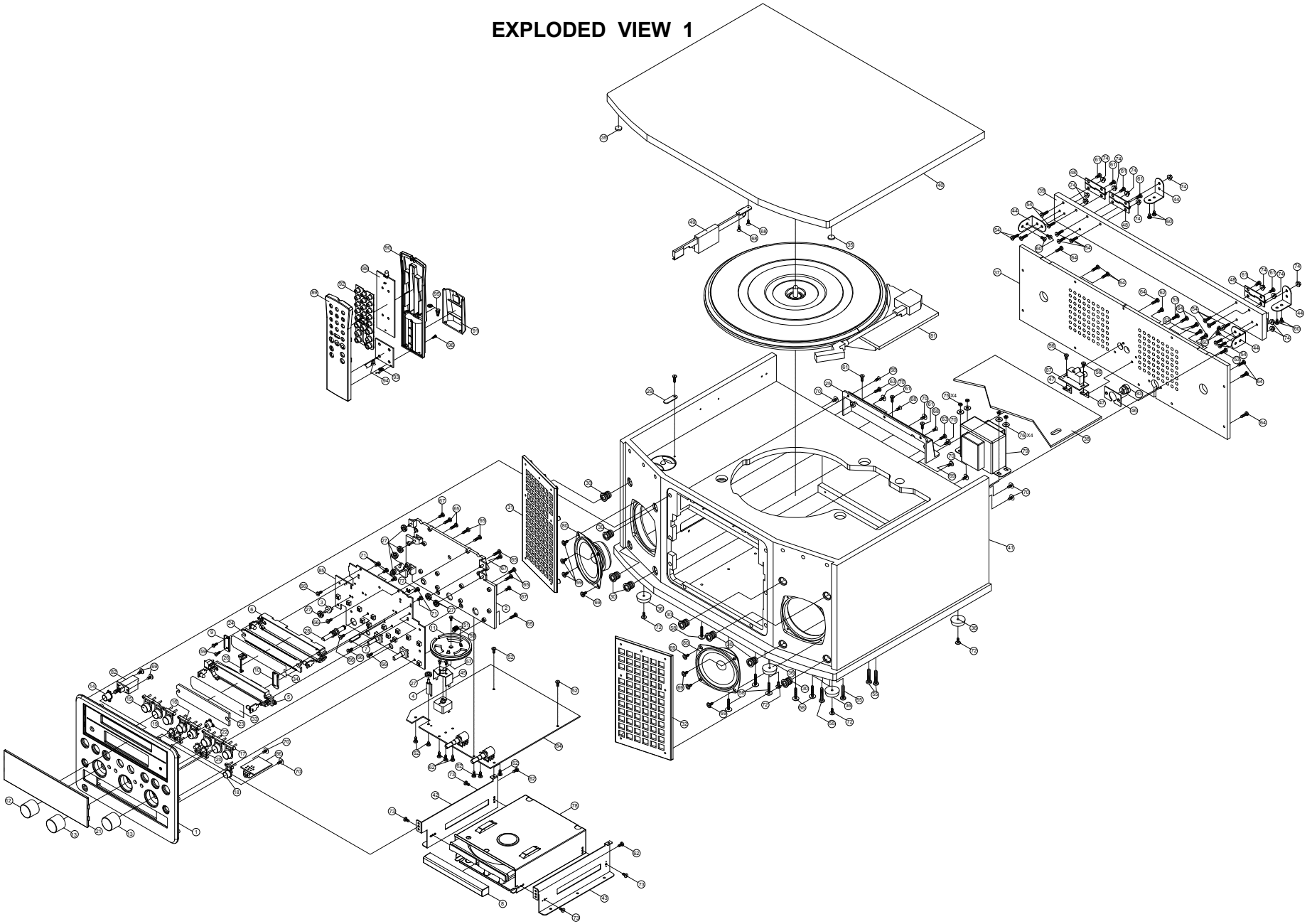
ITEM	SG SETTING	TUNER SETTING	ADJUSTMENT POINT	ADJUSTMENT
FM				
1. IF adjustment	10.7MHz	108MHz	T3 (FM ORG)	With 10.7 MHz at zero crossover
2. FM band	87.5MHz 1kHz, +/-22.5kHz dev.	87.5MHz	L3 (FM OSC COIL)	Adjust for max.output.
	108MHz 1kHz, +/-22.5kHz dev.	108MHz	PVC (C2)	
3. Tracking	90MHz 1kHz, +/-22.5kHz dev.	90MHz	L2 (FM RF COIL)	Adjust for max. output
	106MHz 1kHz, +/-22.5kHz dev.	106MHz	PVC (C1)	
	Repeat step 3 to obtain max adjust.			
AM				
1. IF adjustment	450 kHz 1kHz, 30% mod	1710kHz	T2 (AM IF)	Center & max.output.
2. AM band	530kHz 1kHz, 30% mod	530kHz	L6 (AM OSC COIL)	Adjust for max. output.
	1710kHz 1kHz, 30% mod	1710kHz	PVC (C4)	
3. Tracking	600kHz 1kHz, 30% mod	600kHz	AM ANT COIL	Adjust for max. output
	1400kHz 1kHz, 30% mod	1400kHz	PVC (C3)	
	Repeat step 3 to obtain best tracking.			

3-2-2 CD alignment

Auto alignment.

4. EXPLODED VIEWS AND PARTS LIST

EXPLODED VIEW 1



EXPLODED VIEW-1

REF. NO	PARTS NO.	DESCRIPTION	REMARKS
1-1	56-04GF3500B010	FRONT PANEL	
1-2	56-07GF3500B000	DIAL BRACKET	
1-3	56-07GF3501B000	PULLEY BRACKET (1)	
1-4	56-07GF3502B000	PULLEY BRACKET (2)	
1-5	56-07GF35039000	LCD HOLDER	
1-6	56-07GF35049000	DIAL BACK LIGHT LENS HOLDER	
1-7	56-07GF3505B000	LAMP BRACKET	
1-8	56-14GF3500B010	CD DOOR	
1-9	56-22GF35008010	DIAL BACK LIGHT LENS COVER - L	
1-10	56-22GF35018010	DIAL BACK LIGHT LENS COVER - R	
1-11	56-25GF3500B000	DIAL DRUM	
1-12	56-54GF35008000	TUNING KNOB	
1-13	56-54GF35018000	VOLUME/REC. LEVEL KNOB	
1-14	56-54GF3502B000	POWER KNOB	
1-15	56-54GF3503B000	PHONE/AUX, FM/AM, CD KNOB	
1-16	56-54GF3504B000	TRACK/RECORD KNOB	
1-17	56-54GF3505B010	STOP/PLAY/PAUSE KNOB	
1-18	56-54GF3506B010	OPEN/CLOSE KNOB	
1-19	56-54GF3507B000	ERASE/FINALIZE KNOB	
1-20	56-54GF3508B000	MUSIC SKIP KNOB	
1-21	56-57GF35000010	DISPLAY LENS	
1-22	56-57GF35019000	REC KNOB LENS	
1-23	56-57GF35020000	LCD BACK LIGHT LENS	
1-24	56-57GF35030010	DIAL BACK LIGHT LENS	
1-25	56-69GF3500B000	WOODEN BOX COVER PLATE	
1-26	56-75GF3500G000	POINTER	
1-27	56-76ST1500B000	DIAL PULLEY	
1-28	56-79GF3500B000	TUNING SHAFT	
1-29	56-79GF3501B000	SHAFT ADAPTOR	
1-30	56-80S16800B000	SPEAKER PANEL STUD	
1-31	56-86GF3500B000	SPEAKER FRAME - L	
1-32	56-86GF3501B000	SPEAKER FRAME - R	
1-33	57-26GF35000020	FILTER PLATE - 1	
1-34	57-26GF35000120	FILTER PLATE - 2	
1-35	58-263102200020	RUBBER FOOT D=10mm	
1-36	58-263202600120	HARD RUBBER FOOT	
1-37	58-70GF35000020	REAR BOARD	
1-38	58-71GF35000220	WOODEN PLATE 230x29x3mm	
1-39	58-71GF35000020	WOODEN PLATE 449.6x58x9mm	
1-40	58-71GF35000120	WOODEN TOP COVER	
1-41	58-73GF35000020	WOODEN BOX	
1-42	61-11GF35000020	CD MACHINE BRACKET - L	
1-43	61-11GF35000120	CD MACHINE BRACKET - R	
1-44	61-11GF35000220	WOODEN BRACKET	
1-45	61-11SN11600021	PVC BRACKET	
1-46	61-22SG19000020	BUSHING MOUNTING PLATE	
1-47	61-25SCD6600020	CONTACT PLATE	
1-48	61-57GF35000020	LOOSE LEAF	
1-49	61-57GF35000120	WOODEN BOX OPEN/CLOSE SHAFT	
1-50	61-95T060800020	SPRING DIAL	

EXPLODED VIEW-1

REF. NO		PARTS NO.	DESCRIPTION	REMARKS
1-51		66-120226150321	MACHINE SCREW MS/BH 2.6x5mm	
1-52		66-120230180321	MACHINE SCREW MS/BH 3x8mm	
1-53		66-120230210321	MACHINE SCREW MS/BH 3x10mm	
1-54		66-120230213121	MACHINE SCREW MS/BH 3x13m (BLK)	
1-55		66-120240222321	MACHINE SCREW MS/BH 4x22mm	
1-56		66-120330160321	MACHINE SCREW MS/PH 3x6mm	
1-57		66-120526140321	MACHINE SCREW MS/KH 2.6x4mm	
1-58		66-120830220321	MACHINE SCREW MS/WH 3x20mm	
1-59		66-140226180321	SELF-TAPPING SCREW TA/BH 2.6x8mm	
1-60		66-140230180121	SELF-TAPPING SCREW TA/BH 3x8mm (BLK)	
1-61		66-140230210121	SELF-TAPPING SCREW TA/BH 3x108mm (BLK)	
1-62		66-140230210321	SELF-TAPPING SCREW TA/BH 3x10mm	
1-63		66-140230212121	SELF-TAPPING SCREW TA/BH 3x12mm (BLK)	
1-64		66-140230214121	SELF-TAPPING SCREW TA/BH 3x14mm (BLK)	
1-65		66-140230214321	SELF-TAPPING SCREW TA/BH 3x14mm	
1-66		66-140330180321	SELF-TAPPING SCREW TA/PH 3x8mm	
1-67		66-140330210321	SELF-TAPPING SCREW TA/PH 3x10mm	
1-68		66-140530180121	SELF-TAPPING SCREW TA/KH 3x8mm (BLK)	
1-69		66-140830210321	SELF-TAPPING SCREW TA/WH 3x10mm	
1-70		66-141430210321	SELF-TAPPING SCREW TA/WH 3x8mm	
1-71		66-150330160321	SELF-TAPPING SCREW TB/PH 3x6mm	
1-72		66-150830180121	SELF-TAPPING SCREW TB/WH 3x8mm (BLK)	
1-73		66-170230160321	HARDEN SCREW TT/BH 3x6mm	
1-74		67-021300000120	NUT+ WASHER DIA M3mm	
1-75		67-021400000020	NUT M4mm	
1-76		68-112403101000	METAL WASHER 4x10x1mm	
1-77		68-412400000000	RING (E) TYPE 4mm	
1-78		02-20GF35000000	CD MECHANISM ASSY	
1-79	⚠	18-203GF3500120	H/TRANSFORMER EI66	
1-80		19-021093100220	SPEAKER - 4 OHM	
1-81		20-60ST15000000	PHONOGRAPH MECHANISM	
1-82		41-193220000220	POWER SWITCH	
1-83		43-500000002020	CD CORD BUSHING	
1-84		05-01GF35000000	MAIN PCB ASSY	
1-85		05-04GF35000000	DISPLAY PCB ASSY	
1-86		05-09GF35000000	HP PCB ASSY	
1-87		05-09GF35000100	AUX PCB ASSY	
1-88		05-13GF35000000	REMOTE PCB ASSY	
1-89		56-43GF3500B010	FRONT CABINET	
1-90		56-43GF3501B000	REAR CABINET	
1-91		56-44GF3500B000	BATTERY DOOR	
1-92		58-23GF35008120	RUBBER KEY	
1-93		61-11GF35000020	REMOTE BATTERY SPRING (+)	
1-94		61-26GF35000120	REMOTE BATTERY SPRING (-)	
1-95		61-26GF35000220	REMOTE BATTERY SPRING (+/-)	
1-96		61-140320180321	SELF-TAPPING SCREW TA/PH 2x8mm	

5 PC BOARDS AND PARTS LIST

MAIN PCB ASSY

REF. NO		PARTS NO.	DESCRIPTION	REMARKS
		05-01GF35000000 05-01GF35000100	COMPLETE MAIN PCB ASSY	
		48-01FF35000122	MAIN PCB	
C43,81,83	⚠	26-017100750121	E.CAP 1000UF/16V	
C41,42	⚠	26-017220760121	E.CAP 2200UF/16V	
C87,102	⚠	26-017470850121	E.CAP 4700UF/25V	
CF1		31-026455000120	CER. FILTER KTP455Y	
CF2		31-028107000110	CER. FILTER SFE10.7MA-5	
CON3		43-012200120120	WAFER 2PIN P=2MM	
CON4		43-012200150120	WAFER 5PIN P=2MM	
CON5		43-012200130120	WAFER 3PIN P=2MM	
CON8		43-012200214120	WAFER 14PIN P=2MM	
CON10,11		43-012250120120	WAFER 2PIN P=2.5MM	
D3		12-1N4148000021	DIODE 1N4148	
D4-D11		12-1N5401000021	DIODE 1N5401	
D17		12-1N4001000021	DIODE - 1N4001	
D12,13		12-PMLL4148L021	SMD DIODE - PMLL4148L	
F1,F2	⚠	46-015200300010	AXIAL FUSE 2A/250V	
IC1		16-SA2111000021	IC - SA2111N	
IC2		16-BA5417000021	IC - BA5417	
IC3		16-TC4052BP0021	IC - TC4052BP	
IC4		16-HEF4066B0121	IC - HEF4066BP	
IC5		16-TC9260P00021	IC - TC9260P	
IC6,8		16-KA7808000021	IC - KA7808	
IC7,9		16-KA7805000021	IC - KA7805	
L1,2		40-351450135020	FM COIL 0.8x4.5x3.5T	
L3		40-351450125020	FM COIL 0.8x4.5x2.5T	
L6		40-019100002020	AM OSC COIL - RED	
PVC		27-010000130120	PVC #443DF-1DF	
Q1,12		11-8550D0000021	TR - 8550D	
Q2-4,6-9,11,13, Q15,18,20-26		11-MMBT39040021	SMD TR - MMBT3904LT1	
Q16,19		11-KSB772YS0021	TR - KSB772YS	
Q5,10		11-MMBT39060021	SMD TR - MMBT3906LT1	
Q14		11-9013G0000021	TR - 9013G	
T2		40-01A049004020	AM IFT - YELLOW	
T3		40-017400003020	AM IFT COIL - ORANGE	
ZD1		12-011390320121	ZENER DIODE 3.9V	
ZD2		12-011430320121	ZENER DIODE 4.3V	
ZD4		12-011620320121	ZENER DIODE 6.2V	

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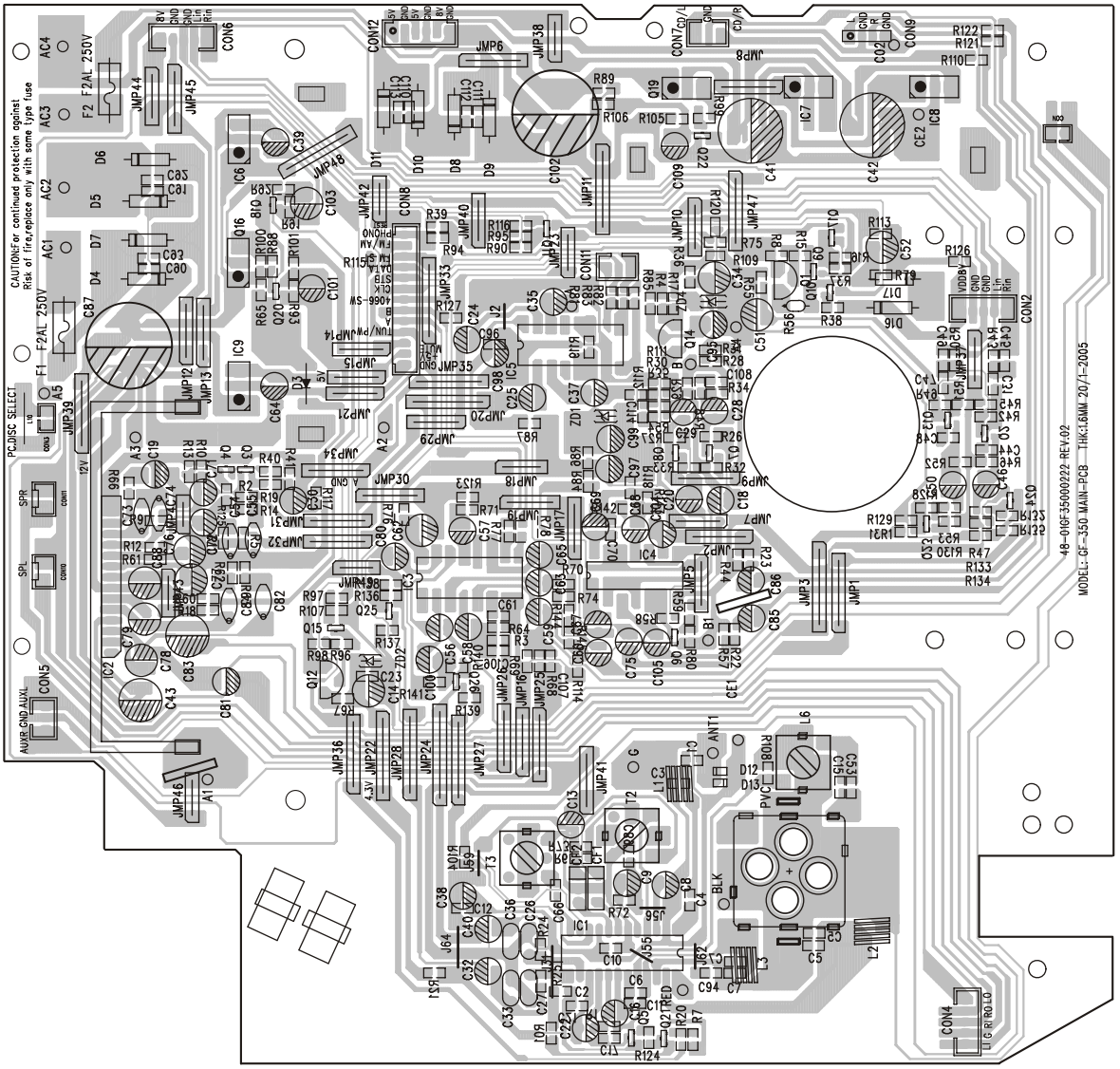
MAIN PCB



DISPLAY PCB ASSY

REF. NO	PARTS NO.	DESCRIPTION	REMARKS
	05-04GF35000000	DISPLAY PCB ASSY	
	48-04GF35000221	DISPLAY PCB	
CN502	43-012100190520	SMD WAFER 9PIN P=1MM	
CN504	43-022200160120	WAFER 6PIN P=2MM	
D502	13-011306622020	LED 3mm (BLUE)	
D503,506	13-011200022020	LED 2x5x7mm (WHITE)	
D507	13-011292121020	LED 2.94mm (RED)	
LCD501	13-05GF35000021	LCD DISPLAY #SDT-DA870-TP-1	
Q501	11-DTA124ES0025	TR - DTA124ES	
S500,501	22-501200000820	ROTARY ENCODER E1211A3AV1NG0000	
SW511-517, SW521-526	41-150010030020	TACH SWITCH 6x6mm	
U501	16-LC877C32C021	IC - LC877C32C	
U502	17-05FM60380010	OPTIC SENSER - FM-6038TM2	
U503	16-PST600D00021	IC - PST600D	
X501	31-047450000020	CER. RESONATOR 4.5MHz	

AUX PCB ASSY

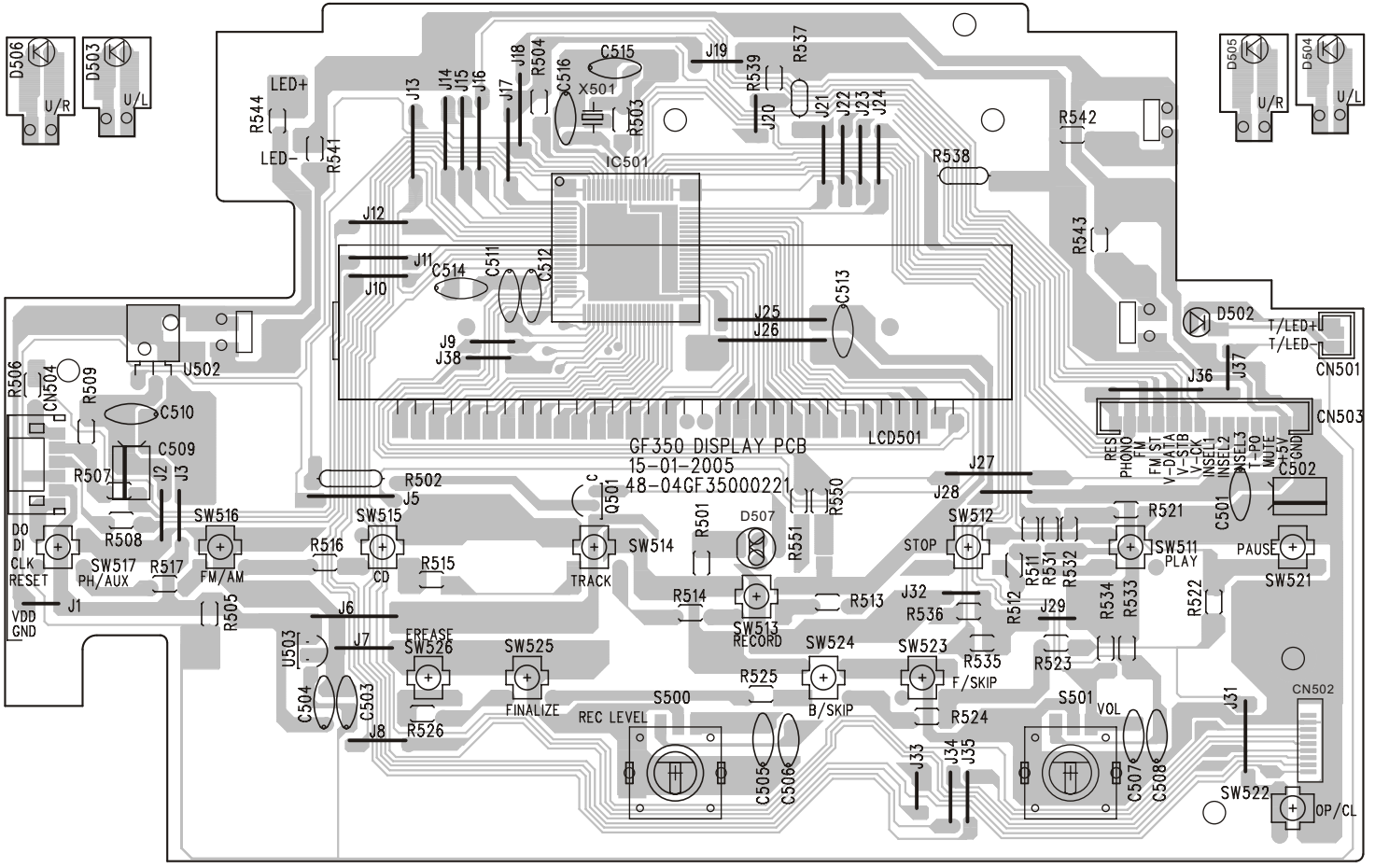
REF. NO	PARTS NO.	DESCRIPTION	REMARKS
	05-09GF35000100	AUX PCB ASSY	
	48-09GF35001120	AUX PCB	
CL1,2,3	38-013100050220	AXIAL INDUCTOR 10UH	
JK1	43-451200001020	RCA JACK 2P	

H/P PCB ASSY

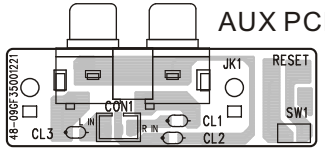
REF. NO	PARTS NO.	DESCRIPTION	REMARKS
	05-09GF35000000	H/P PCB ASSY	
	48-09GF35000120	H/P PCB	
L4,8,9	38-013100050120	AXIAL INDUCTOR 10UH	
PHONE J	43-431360006020	PHONE JACK-JY353507001/P	

GF-350

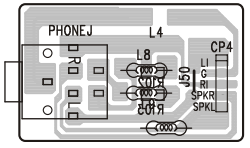
DISPLAY PCB



AUX PCB



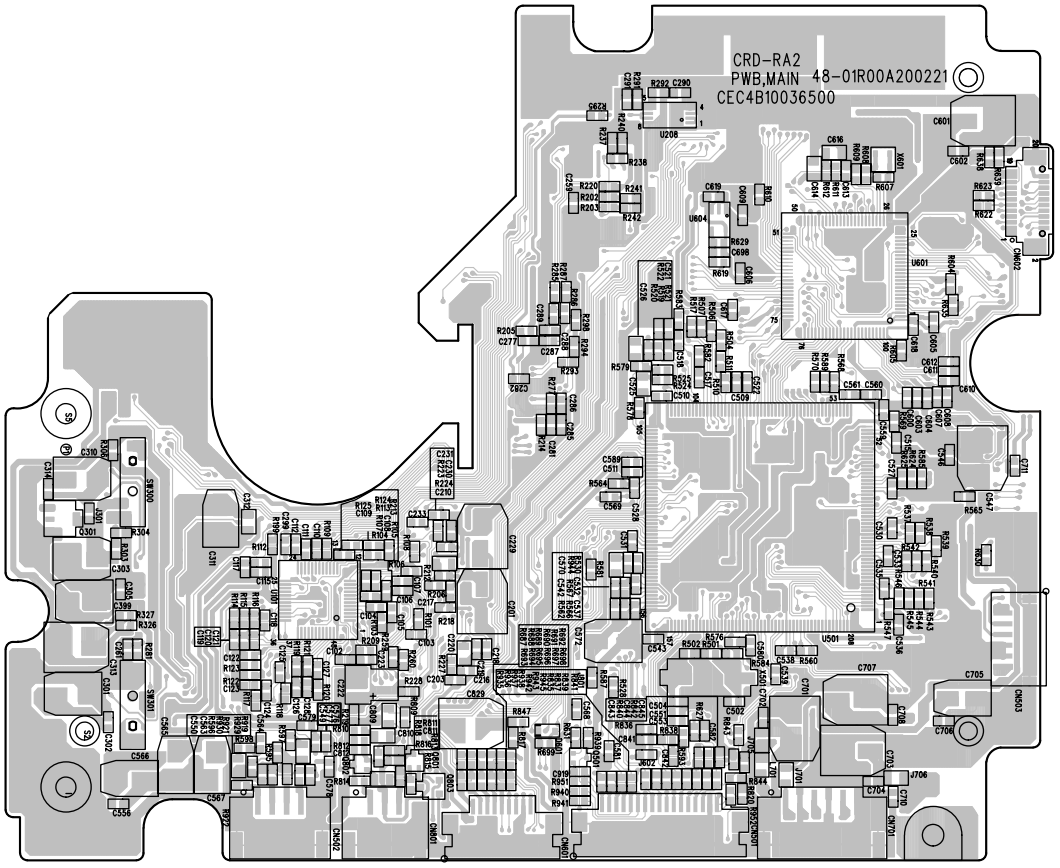
H/P PCB



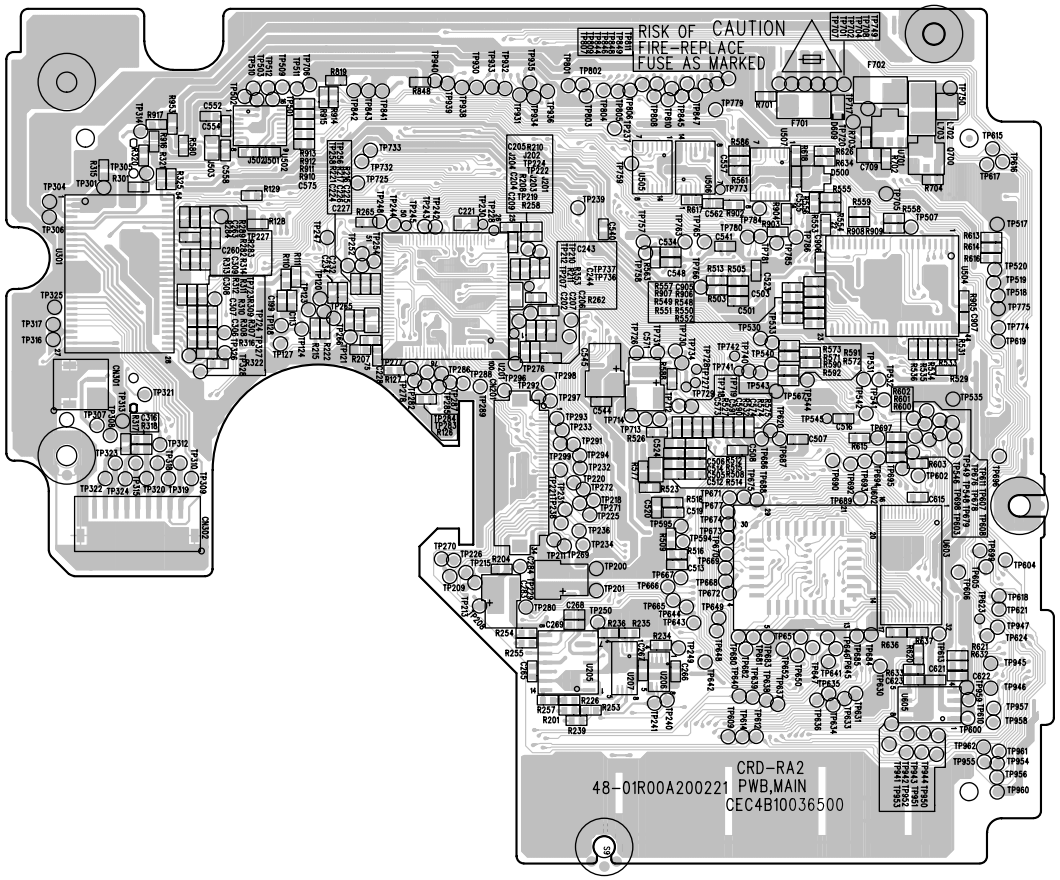
POWER MAIN PCB(CD MECHANISM ASSY)

REF. NO	PARTS NO.	DESCRIPTION	REMARKS
	05-01RA00200010	POWER MAIN PCB (CD MECHANISM ASSY)	
	48-01R00A200222	POWER MAIN PCB	
CN201	43-011500234120	SMD WAFER 34 PIN P=0.5MM	
CN301	43-022150120520	SMD WAFER 2 PIN P=1.5MM	
CN302	43-022150190520	SMD WAFER 9 PIN P=1.5MM	
CN501	43-012100217520	SMD FFC.WAFER 17 PIN P=1MM	
CN502	43-022200140520	SMD WAFER 4 PIN P=2MM	
CN503	43-022150160520	SMD WAFER 6 PIN P=1.5MM	
CN601	43-012100190520	SMD FFC.WAFER 9 PIN P=1MM	
CN602	43-021800220520	SMD WAFER 20 PIN P=0.8MM	
CN701	73-022200160520	SMD WAFER 6 PIN P=2MM	
CN801	43-022200130520	SMD WAFER 3 PIN P=2MM	
D500	12-DAN217000021	DIODE - DAN217	
D601	12-011510320521	SMD ZENER DIODE - 5.1V	
D609	12-011560320511	SMD ZENER DIODE - 5.6V	
F701,702	46-125200200010	SMT FUSE 6125T-2A 125V	
Q301,700	11-2SB113200021	SMD TR - 2SB1132	
Q801,802	11-2SC455570021	SMD TR - 2SC4555-7	
Q803	11-DTA124EK0021	SMD TR - DTA124EKA	
U101	16-BH3802KV0021	IC - BH3802KV	
U201	16-AK8567000021	IC - AK8567	
U205	16-AD8402AR0021	IC - AD8402AR10	
U206	16-TC4W53FU0021	IC - TC4W53FU	
U207,208	16-NJM3404A0021	IC - NJM3404AV	
U301	16-BA5960FS0021	IC - BA5960FS	
U501	16-LC8958700021	IC - LC89587	
U502	16-AK5353VT0021	IC - AK5353VT	
U504	16-M54160000021	IC - MSM5416258B	
U505	16-TC74VHC00021	IC - TC74VHC08FT	
U506	16-TC74VHC30021	IC - TC74VHC32FT	
U507	16-TC74VHC10021	IC - TC74VHV14FT	
U601	16-TMP95C260021	IC - TMP95C265F	
U602	16-A29002TL0021	IC - A29002TL-70	
U604	16-PST597EN0021	IC - PST597ENR	
U605	16-BR9080AF0021	IC - BR9080AF	
U701	16-M5237ML00021	IC - M5237ML	
SW300,301	41-061120100020	LEAF SWITCH	
X501	31-018338600115	CRYSTAL 33.8688MHZ	
X601	31-048225701415	CRYSTAL 22.57MHZ	

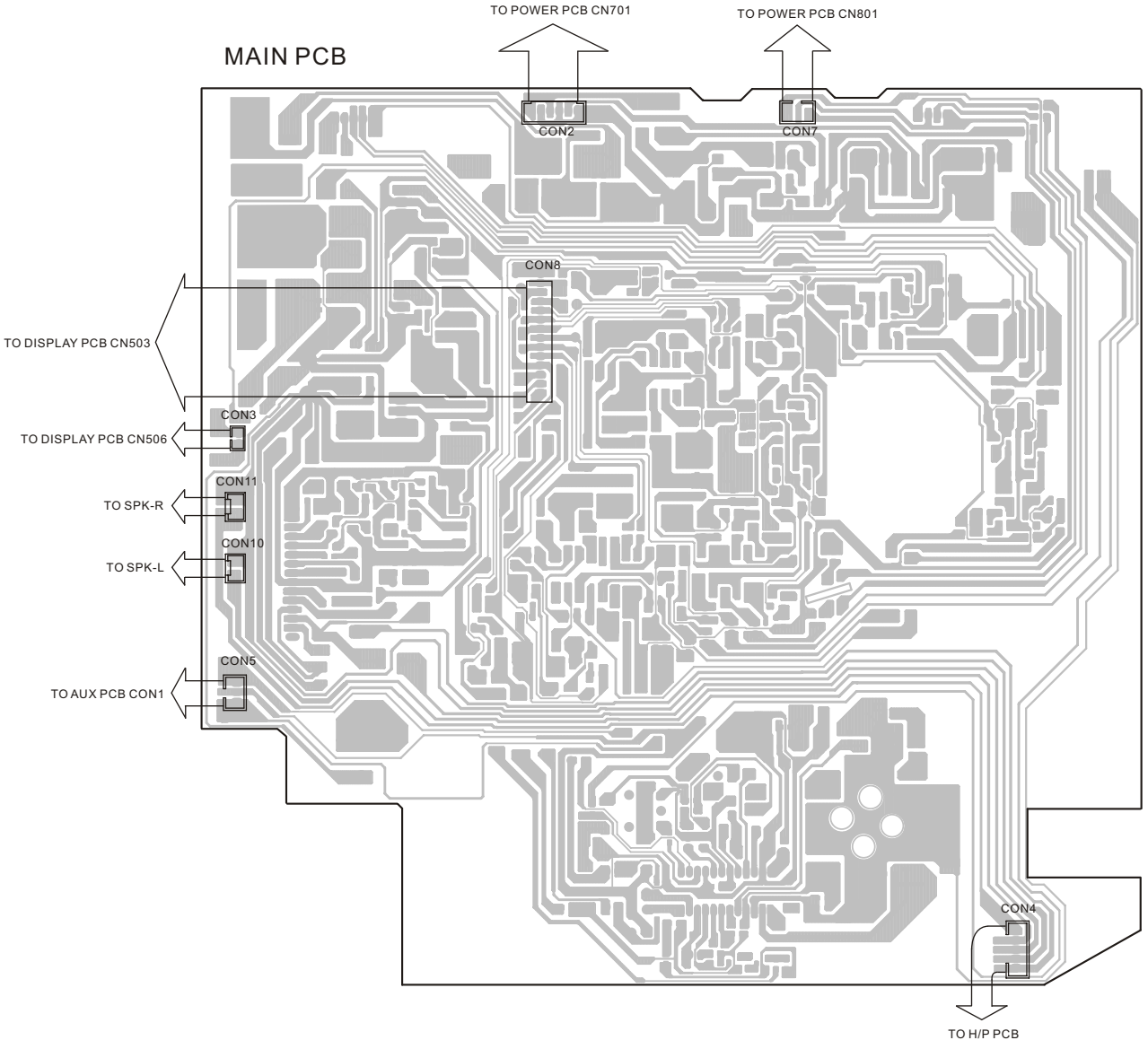
POWER MAIN PCB (CD MECHANISM ASSY)- TOP



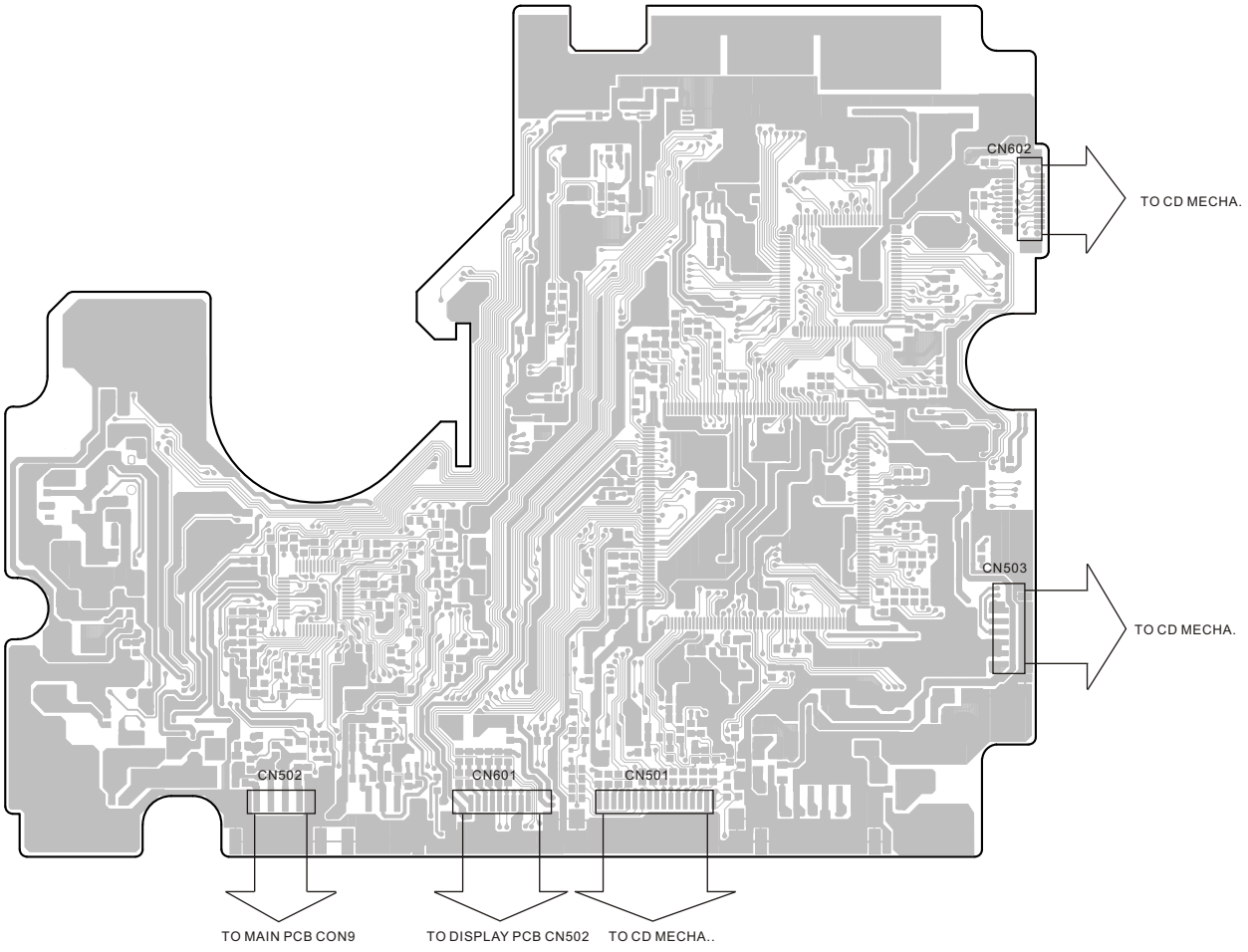
POWER MAIN PCB (CD MECHANISM ASSY) - BOTTOM



6 WIRING DIAGRAM



POWER MAIN PCB (CD MECHANISM ASSY)



7 INCLUDED ACCESSORIES

INCLUDED ACCESSORIES

REF. NO	PARTS NO.	DESCRIPTION	REMARKS
	02-17GF35000000	REMOTE CONTROL	
	77-20GF35000021	INSTRUCTION MANUAL	
	51-011150300010	BATTERY 1.5V SS/UM-3	

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TEAC

TEAC CORPORATION	3-7-3 Nakacho, Musashino-shi, Tokyo 180-8550, Japan Phone:(0422)52-5081
TEAC AMERICA, INC.	7733 Telegraph Road, Montebello, California 90640 Phone: (323)726-0303
TEAC CANADA LTD.	5939 Wallace Street, Mississauga, Ontario L4Z 1Z8, Canada Phone: (905)-890-8008
TEAC MEXICO, S.A.De C.V.	Campesinos N°184,Colonia.Granjas Esmeraida, Delegacion Iztapalapa,CP 09810,Mexico DF Phone: (525)-581-5500
TEAC UK LIMITED	Unit 19 & 20, The Courtyards, Hatters Lane, Watford, Hertfordshire, WD18 8TE5, U.K. Phone:(0845) 130-2511
TEAC EUROPE GmbH	Bahnstrasse 12, 65205 Wiesbaden-Erbenheim, Germany Phone: 0611-71580
TEAC ITALIANA S.p.A.	Via C, Cantu 9/A, 20092 Cinisello Balsamo, Milano, Italy Phone:02-66010550
TEAC AUSTRALIA PTY., LTD. A.B.N. 80 005 408 462	280 William Street, Melbourne VIC 3000, Australia Phone:(03)9672-2400

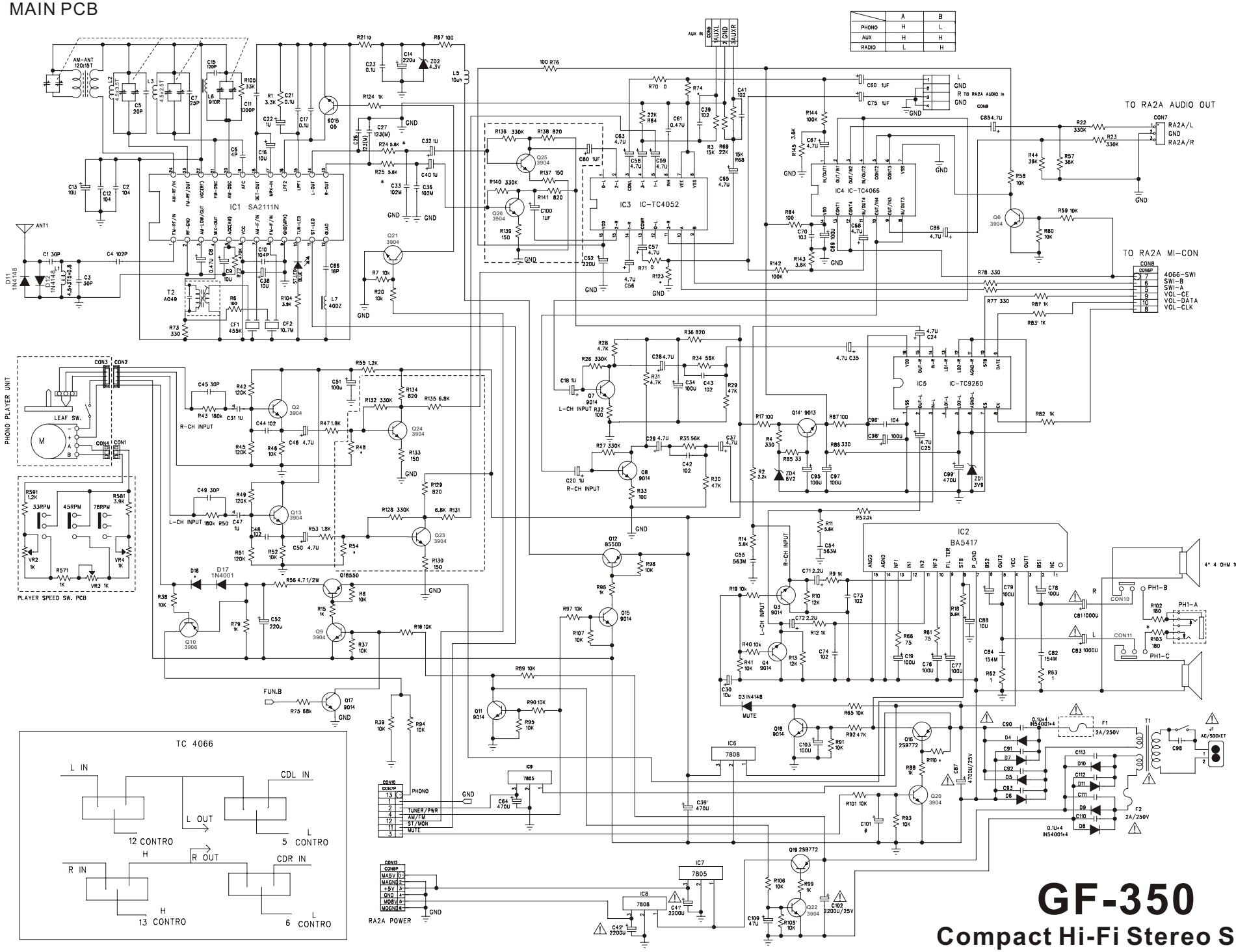
This appliance has a serial number located on the rear panel. Please record the model number and serial number and retain them for your records.

Model number Serial number

0905: MA-1009A

PREPARED IN HONG KONG

MAIN PCB



	A	B
PHONO	H	L
AUX	H	H
RADIO	L	H

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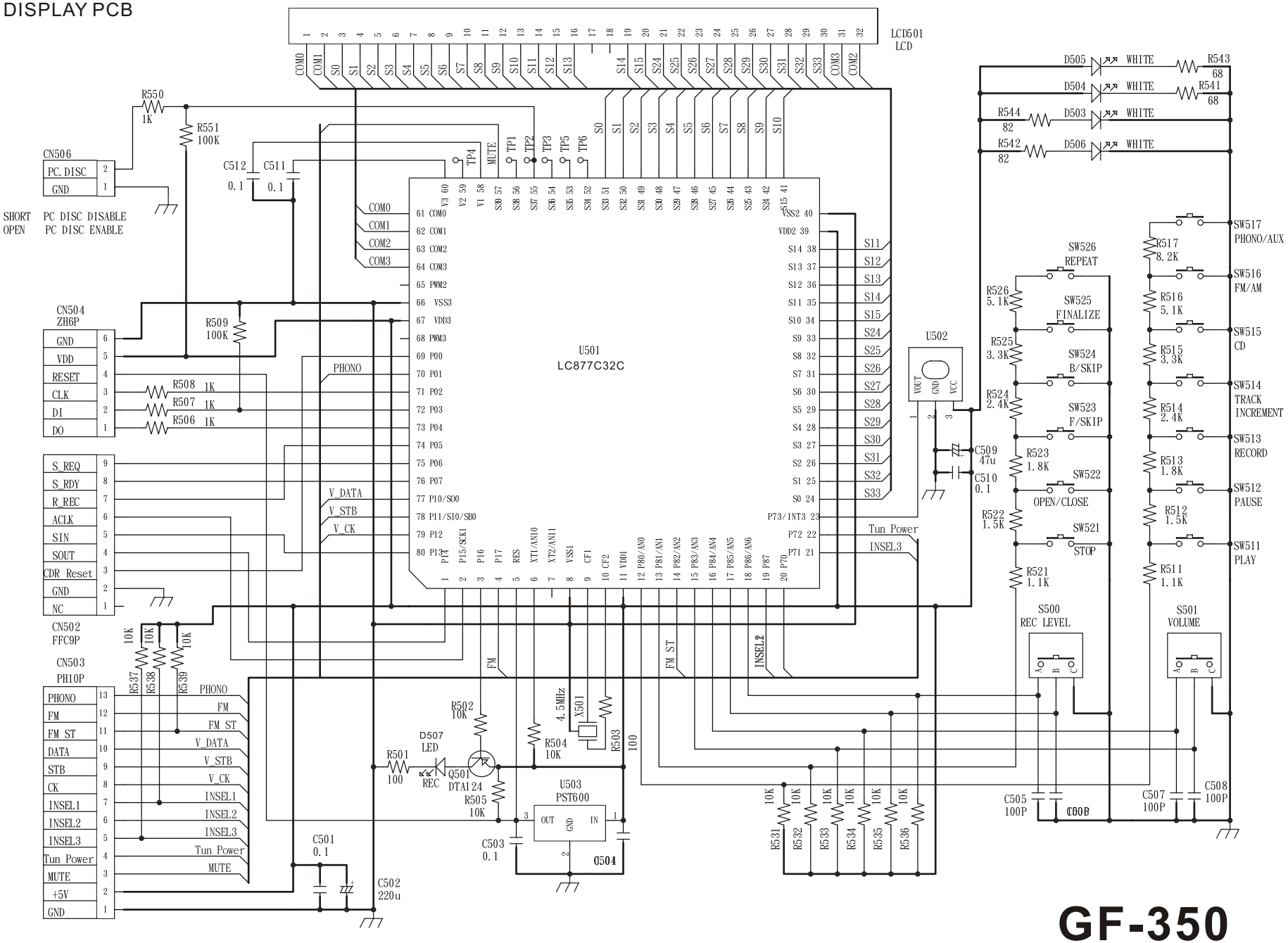
Compact Hi-Fi Stereo System

DISPLAY PCB



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Compact Hi-Fi Stereo System

POWER MAIN PCB (CD MECHANISM ASSY)